



COMPTROLLER
of MARYLAND
Serving the People

Disaster Recovery Annapolis Data Center

Information Technology Division

William Donald Schaefer
Comptroller

Presenters

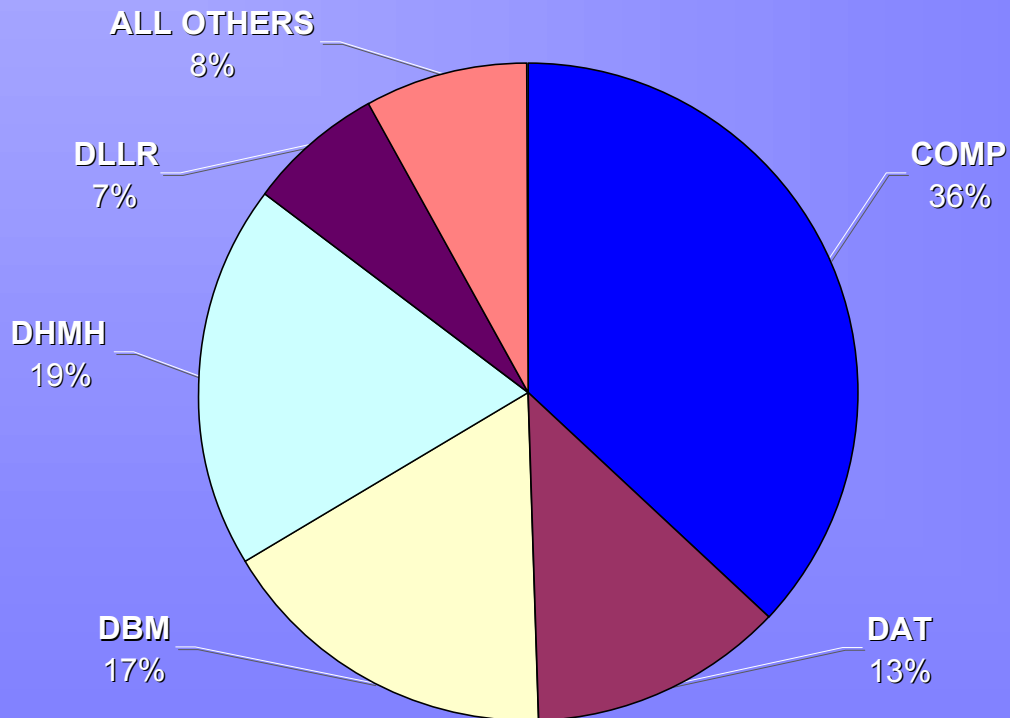
- **Thomas Lupinek**
Deputy Director, Information Technology Division
- **Kenneth Dodge**
Administrative Director, Annapolis Data Center (ADC)

Presentation Overview

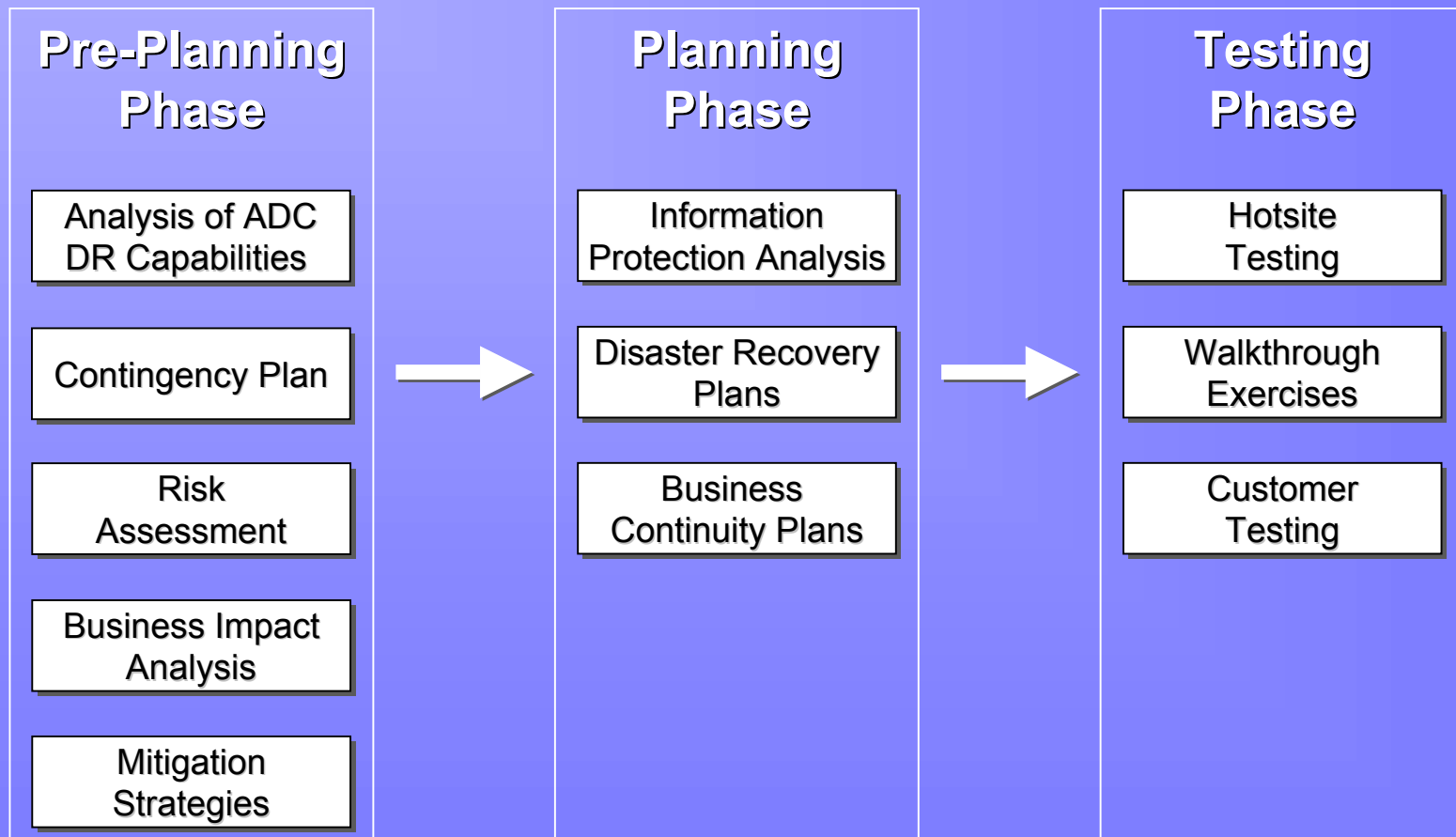
- ADC Introduction
- DR Process
 - Pre-Planning
 - Planning
 - Testing
- Audits and Reviews
- Lessons Learned
- Project Milestones

ADC's Largest Customers

FY2004



Disaster Recovery Process



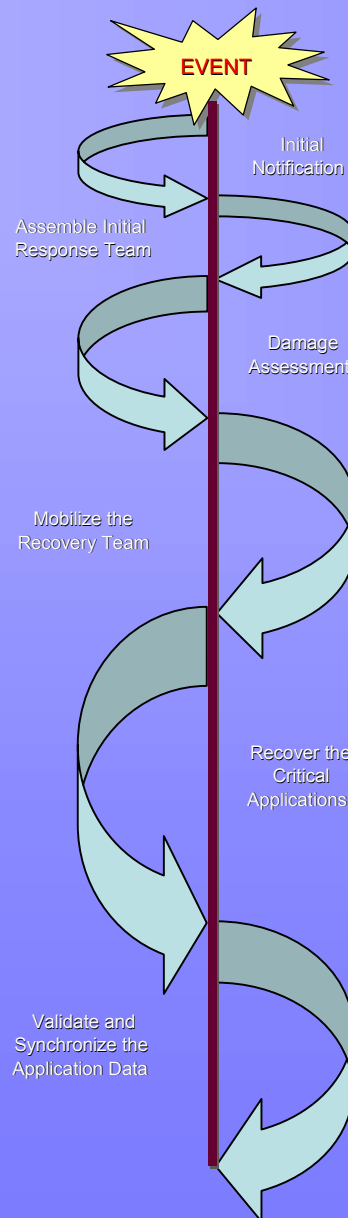
Pre-Planning Phase

- Analysis of ADC Disaster Recovery Capabilities
- Contingency Plan
- Risk Assessment
- Business Impact Analysis
- Mitigation Strategies

Planning Phase

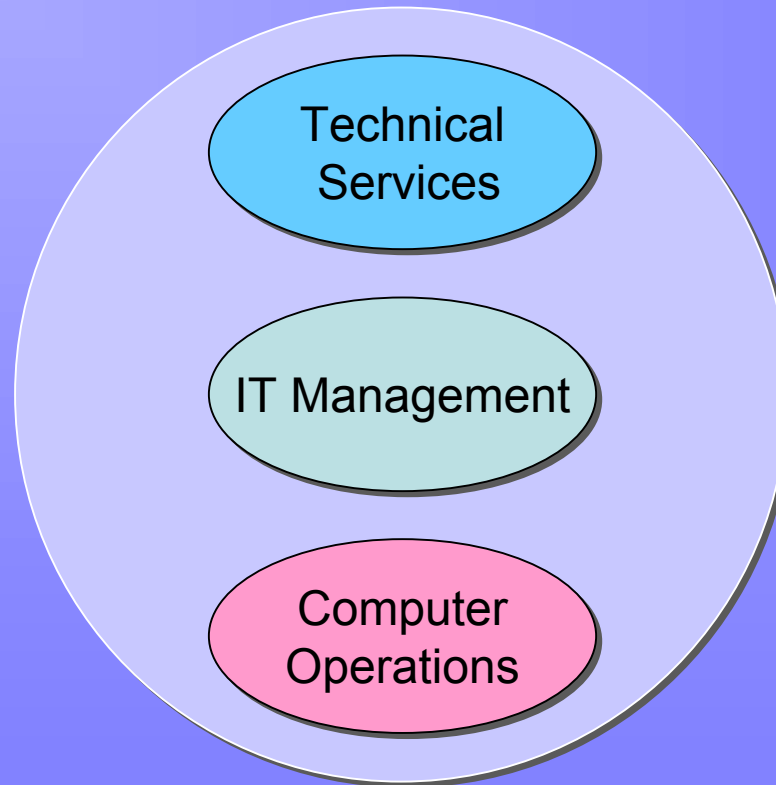
- **Information Protection Analysis (IPA)**
- **Disaster Recovery Plans**
 - IT Management
 - Computer Operations
 - Technical Services
- **Business Continuity and Contingency Planning**

Disaster Recovery Timeline

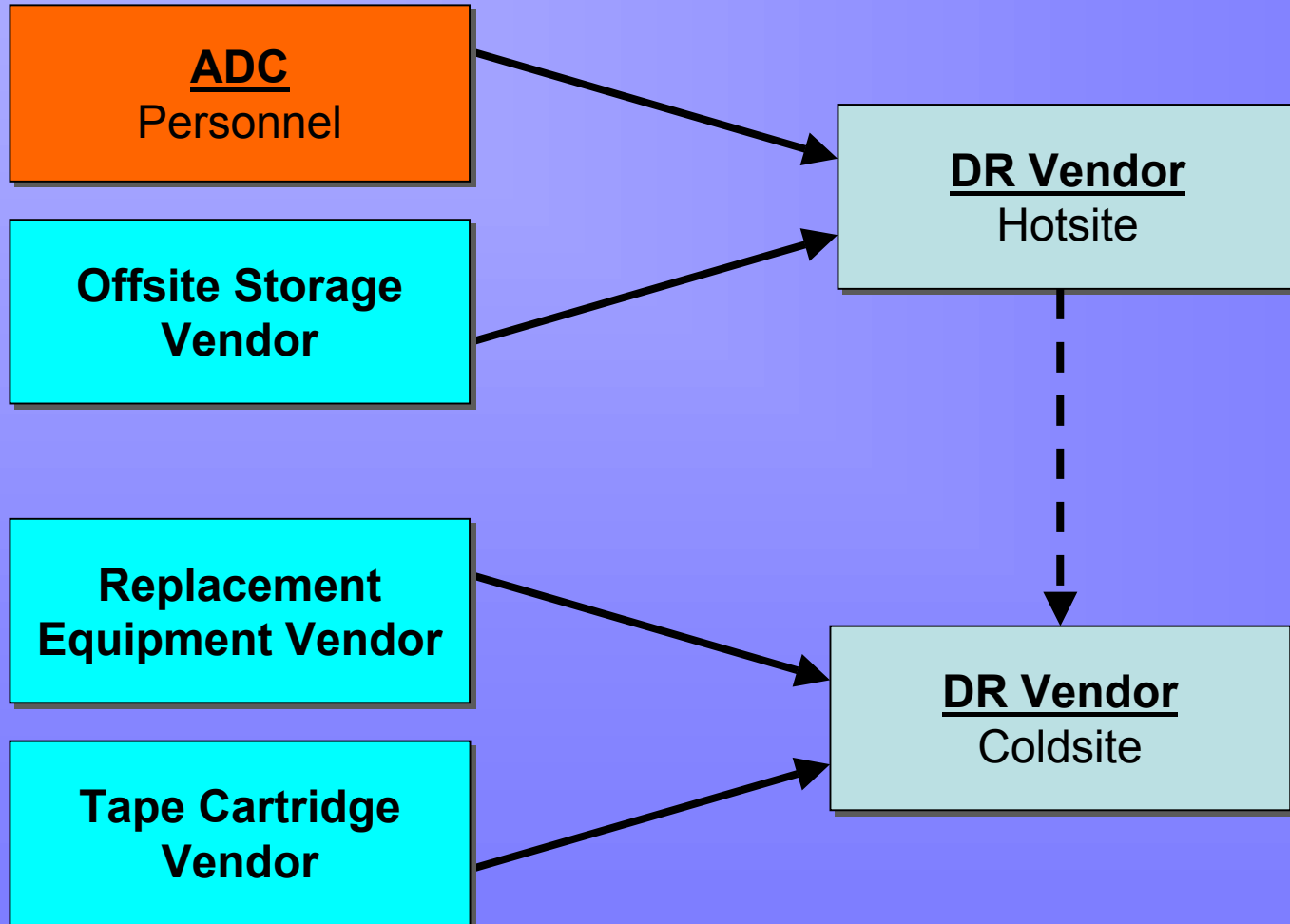


Hours	Tasks
0	<ul style="list-style-type: none"> Initial notification will be made to the Director of Operations by either the security desk or the DGS.
1.5	<ul style="list-style-type: none"> The Initial Response Team will be notified and asked to report to the Command Center.
5.5	<ul style="list-style-type: none"> Determine the extent of the damage and the anticipated length of the outage.
5.5	Decision to Declare
11	<ul style="list-style-type: none"> Recovery Team Travels to Recovery Center. Backup tapes are shipped. Recovery Platforms are established. Restore the Operating Systems to be done by SunGard Recovery Services personnel. (NOTE: OS restore based on delivery and validation of OS load procedures)
20	<ul style="list-style-type: none"> IPL, Restore Applications and Data: <ul style="list-style-type: none"> ➤ Mainframe ➤ On-line Systems ➤ Network
35	<ul style="list-style-type: none"> ➤ Financial & Tax Applications ➤ DB2
39	<ul style="list-style-type: none"> Validate the functionality of the Applications. Validate the integrity of the Data. Identify lost data and re-input with retained documentation. Update systems with manually processed records.
47	<ul style="list-style-type: none"> Back up systems.
47	<ul style="list-style-type: none"> Return system to users.

DR Plan



DR Vendors



Testing Phase

- Testing the Plan
 - Hotsite Testing
 - Walkthrough Exercises
- ADC Customer Testing
- Hotsite Test Accomplishments

Conclusion

- Audits and Reviews
- Lessons Learned
- Disaster Recovery Project Milestones

Audits and Reviews

State of Maryland, Department of Budget and Management, Statewide Security Support, Annapolis Data Center Disaster Recovery Assessment (dated January 14, 2003), SAIC states the following:

“It should be noted that ADC has completed all the steps outlined in the State of Maryland’s IT Disaster Recovery Guidelines...”

Lessons Learned

- Get business units started right away.
- Document what you already know.
- Consider a professional DR contractor.
- This is a comprehensive project involving virtually everyone in the organization.
- Coordination is a full time job.
- Disaster recovery is a continuous process.
- Support from upper management is essential.
- Include a line item in your budget for DR.
- Disaster recovery currently accounts for 2.5% of the ADC's operating budget.

Disaster Recovery Project Milestones

1. August 1999 – Issued PO for a contractor to analyze existing ADC DR capabilities and recommend improvements.
2. June 2000 – Received analysis of ADC disaster recovery capabilities.
3. October 2000 – Issued RFP for hotsite recovery vendor.
4. May 2001 – Hired full-time Contingency Planning Coordinator.
5. June 2001 – Signed contract with SunGard, our DR consulting firm.
6. June 2001 – Project kickoff session.
7. November 2001 – First hotsite test.
8. November 2001 – Comptroller IPA.
9. December 2001 – First walk through exercise.
10. April 2002 – Version 1 of DR plans completed.
11. June 2002 – Second hotsite test.
12. June 2002 – Issued IFB for offsite storage vendor.
14. June 2002 – IPA report for DBM.
15. September 2002 – IPA reports for DAT, DLLR, and DHMH (Medicaid).
16. October 2002 – Iron Mountain contract.
17. November 2002 – Third hotsite test (DBM first customer).
18. December 2002 – SAIC assessment of the ADC disaster recovery plans.
19. March 2003 – Walk through exercise.
20. May 2003 – IPA reports for SRA, MDE, and DHMH (non-Medicaid).
21. June 2003 – Fourth hotsite test (SunGard IPL of mainframe).
22. August 2003 – BCCP Plans completed for the Central Payroll Bureau of the Comptroller of Maryland.
23. August 2003 – Coldsite plans completed.
24. September 2003 – Connection between net.work.Maryland and SunGard completed.

Questions?

Contact info:

Patricia Bitango

410-260-7708

pbitango@comp.state.md.us